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# State of Utah

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September 24, 2001

TO: Internal File

FROM: Stephen J. Demczak, Sr. Reclamation Specialist *Sm from SJD*

RE: Blasting Plan, Canyon Fuel Company, LLC., Dugout Mine, C/007/039-01I-1

## SUMMARY:

The permittee has submitted a blasting plan to use more than five pounds of explosive per shot. This plan will be used to remove rock in the existing ditch next to the Dugout Canyon County road. A pipeline will be installed to transport wastewater from the mine to the leach field.

## TECHNICAL ANALYSIS:

## OPERATION PLAN

### USE OF EXPLOSIVES

Regulatory Reference: 30 CFR Sec. 817.61, 817.62, 817.64, 817.66, 817.67, 817.68; R645-301-524.

#### Analysis:

##### General

The permittee has submitted a certified blaster certificate from Shane Campbell, Badge Number 118. This certified blaster is the contractor who is currently constructing the leach field.

The permittee has described the blasting design in the amendment. The blasting design consists of cross-sections that give stemming height, hole sizing, depth of hole, type of explosive, and delays.

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The amendment has noted that the certified blaster will have one other person present at the firing of a blast.

The permittee's blasting will not be conducted within 1,000 feet of any building used as a dwelling, public school, church, or community or institutional building outside the permit area.

The permittee will not blast within 500 feet of an active or abandoned underground mine.

The certified blaster has signed the blasting design and it was submitted with the amendment.

**Pre-blasting Survey**

The pre-blast survey must be described in the permit application for underground coal mining and reclamation activities using more than five pounds of blasting agent or explosives. The permittee has stated, "A pre-blast survey of the power transmission line within the blast area will be inspected for structural damage."

**Performance Standards**

The permittee has committed to conduct blasting between sunrise and sunset.

The permittee has stated that a schedule will be posted at the mine site and will be given to the local government and public utility (UP&L).

The permittee has published the blasting schedule in the local newspaper giving detail of the blasting area and this was included in the amendment. The information meets the requirements of this section.

**Blasting Signs, Warnings and Access Control**

In the amendment, the permittee has committed to have the blasting signs comply with the sign specification of coal rule R645-301-521.200.

The permittee will conspicuously place signs that read, "Blasting Area" along the end of any blasting area that comes within 100 feet of any public road right-of-way.

The permittee has made a commitment in the amendment to place signs that state "Warning! Explosives in Use" along the county road.

"Warning" and "all-clear" signals of different character or pattern that is audible within half a mile range is required. The permittee has addressed this rule by using audible signals with

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three short horn blasts for "warning" and one long horn blast for "all clear".

The permittee has stated, "Access control will be exercised preventing anyone from entering the blasting area."

**Control of Adverse Effects**

The permittee will control adverse blasting effects by the use of blasting mats for flyrock. Air blast and ground vibrations will not have adverse effects since the nearest building is one-half mile away from the blast site.

**Record of Blasting Operations**

The application states, "That no structures exist within a distance that would present concerns from airblast or ground vibration." The nearest structure that I am aware of is the truck loadout at Dugout mine. This is approximately one-half mile from the blasting area.

The permittee will use blast mats, which will prevent flyrock from damaging the power line. This action will reduce the maximum peak-particle velocity.

The permittee has submitted a blasting record form to be filled out after each shot. This form is adequate to meet the requirements of this section of the Coal Rules.

**Findings:**

Information provided in the proposed amendment is considered adequate to meet the requirements of the blasting section in the R645 Coal Rules.

**RECOMMENDATIONS:**

The information provided meets the minimum requirements for blasting and is recommended for approval.